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CENTER ENAMEL Glass-Fused-to-Steel Tank

Storage of Bio-gas, Wastewater, Potable Water and Bulk Storage



Palm Oil Wastewater Treatment Plant, Sandakan



Coca-Cola Plant Wastewater Treatment, Seremban



Wastewater Treatment Project, Indonesia



Sinopec Wastewater Treatment, Quanzhou



CENTER ENAMEL With over 30 years experience in enameling industry and more than 20 enamel formula patents

About Manufacturer

Introduction

Center Enamel Co., Ltd is a professional manufacturer dedicated to the design and fabrication of enamel products since 1989, product range from enamel/GFS tanks, enamel cookware and enamel frit. Our enamel/GFS tanks are widely applied in bio-energy, wastewater treatment, potable water storage and dry bulk storage etc. applications.

With over 30 years experience in enameling industry and more than 20 enamel formula patents, we are not only the most experienced GFS tanks manufacturer in China, but also the first one in China to produce double -sides enamel hot-rolled steel. Our GFS tanks have been exported to USA, Australia, Singapore, Malaysia, Thailand, Niger and other 60 countries.

Our company own advanced automatic production line, GFS tank design strictly conform to AWWA D103-09, OSHA and EN28765, and the company already passed ISO9001, NSF61, LFGB and BSCI etc. quality system certification.

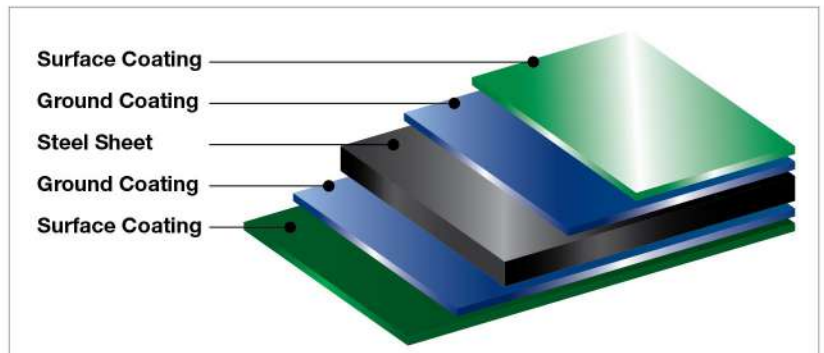


What is Glass-Fused-to-Steel?

Glass-Fused-to-Steel is two materials - Enamel frit and raw steel are fused together after high temperature firing at 820-930°C to achieve the best cohesion blending of the strength and flexibility of steel combined with the corrosion resistance of glass. Applied to both interior and exterior surfaces, Glass-Fused-to-Steel is able to provide many years of trouble free service in harsh environments.



Anaerobic Digester GFS Tanks, Swaziland



Properties of GFS

Coating Color	Standard dark green and blue or customized
Double Coating	2 layers each side
Coating Thickness	0.23-0.45mm
Acid and Alkalinity Proof	Standard PH: 3~11, Special PH:1~14
Adhesion	5,000 psi / 3,450 N/cm
Coating Elasticity	500 kN/mm
Hardness	6.0 (Mohs)
Service Life	≥30 Years
Holiday Test	>1500V
Permeability	Gas liquid impermeable
Easy to Clean	Smooth, glossy, inert, anti-adhesion
Corrosion Resistance	Excellent, suitable for wastewater, salt water, sea water, high sulfur crude oil, salt fog organic and inorganic compounds

Main Production Procedure



Plate CNC Cutting



Enamel Spraying



High Temperature Burning



Quality Inspection 1500 V Holiday Test

Bolts and Nuts

HDG grade 8.8 Bolts head: Food grade with FDA certificate. Bolt head is coated with polypropylene which protects the bolt against corrosion.

Washer

Non-asbestos & HDG.

Sealant

Food grade silicon sealant.

Tank Accessories

Tank comes with internal stainless steel ladder and external galvanised ladder with softy loop.

Roof

Zincalume or Metal Roof comes with GRP manhole and air vent. Other roof are available upon requests.

Size

Size of tank panel	2500mm (W) x 1250mm (H)
Thickness of panel	3mm to 12mm
Size of bolt & nuts	M12 x length (30mm to 65mm)

International Standards



ISO 9001:2015

Glass Fused to Steel Tank Volume Chart

height diame		ring	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5
		height m	2.4	3	3.6	4.2	4.8	5.4	6	6.6	7.2	7.8
D (m)	qty for ring	bottom area m2	volume m ³									
3.05	4	7.30	18	22	26	31	35	39	44	48	53	57
3.82	5	11.46	27	34	41	48	55	62	69	76	82	89
4.59	6	16.54	40	50	60	69	79	89	99	109	119	129
5.35	7	22.47	54	67	81	94	108	121	135	148	162	175
6.12	8	29.40	71	88	106	123	141	159	176	194	212	229
6.88	9	37.16	89	111	134	156	178	201	223	245	268	290
7.64	10	45.82	110	137	165	192	220	247	275	302	330	357
8.4	11	55.39	133	166	199	233	266	299	332	366	399	432
9.17	12	66.01	158	198	238	277	317	356	396	436	475	515
9.94	13	77.56	186	233	279	326	372	419	465	512	558	605
10.7	14	89.87	216	270	324	377	431	485	539	593	647	701
11.47	15	103.28	248	310	372	434	496	558	620	682	744	806
12.23	16	117.41	282	352	423	493	564	634	704	775	845	916
12.99	17	132.46	318	397	477	556	636	715	795	874	954	1033
13.76	18	148.63	357	446	535	624	713	803	892	981	1070	1159
14.51	19	165.27	397	496	595	694	793	892	992	1091	1190	1289
15.29	20	183.52	440	551	661	771	881	991	1101	1211	1321	1431
16.05	21	202.22	485	607	728	849	971	1092	1213	1335	1456	1577
16.82	22	222.09	533	666	800	933	1066	1199	1333	1466	1599	1732
17.8	23	248.72	597	746	895	1045	1194	1343	1492	1642	1791	1940
18.34	24	264.04	634	792	951	1109	1267	1426	1584	1743	1901	2060
19.11	25	286.68	688	860	1032	1204	1376	1548	1720	1892	2064	2236
19.87	26	309.93	744	930	1116	1302	1488	1674	1860	2046	2232	2417
20.64	27	334.42	803	1003	1204	1405	1605	1806	2007	2207	2408	2608
21.4	28	359.50	863	1078	1294	1510	1726	1941	2157	2373	2588	2804
22.17	29	385.83	926	1158	1389	1621	1852	2084	2315	2547	2778	3010
22.93	30	412.74	991	1238	1486	1734	1981	2229	2476	2724	2972	3219
23.69	31	440.55	1057	1322	1586	1850	2115	2379	2643	2908	3172	3436
24.45	32	469.27	1126	1408	1689	1971	2253	2534	2816	3097	3379	3660
25.22	33	499.30	1198	1498	1797	2097	2397	2696	2996	3295	3595	3895
25.99	34	530.25	1273	1591	1909	2227	2545	2863	3182	3500	3818	4136
26.75	35	561.72	1348	1685	2022	2359	2696	3033	3370	3707	4044	4381
27.52	36	594.52	1427	1784	2140	2497	2854	3210	3567	3924	4281	4637
28.28	37	627.81	1507	1883	2260	2637	3013	3390	3767	4144	4520	4897
29.04	38	662.01	1589	1986	2383	2780	3178	3575	3972	4369	4766	5164
29.81	39	697.58	1674	2093	2511	2930	3348	3767	4185	4604	5023	5441
30.57	40	733.60	1761	2201	2641	3081	3521	3961	4402	4842	5282	5722
31.34	41	771.02	1850	2313	2776	3238	3701	4164	4626	5089	5551	6014
32.1	42	808.87	1941	2427	2912	3397	3883	4368	4853	5339	5824	6309
32.87	43	848.14	2036	2544	3053	3562	4071	4580	5089	5598	6107	6616
33.63	44	887.82	2131	2663	3196	3729	4262	4794	5327	5860	6392	6925
34.39	45	928.40	2228	2785	3342	3899	4456	5013	5570	6127	6684	7242
35.16	46	970.44	2329	2911	3494	4076	4658	5240	5823	6405	6987	7569
35.92	47	1012.84	2431	3039	3646	4254	4862	5469	6077	6685	7292	7900
36.69	48	1056.73	2536	3170	3804	4438	5072	5706	6340	6974	7608	8243

Larger tank sizes are available upon request.

Why choose Glass-Fused-to-Steel?

GFS tank Advantages:

- Short Installation Time: prefabricated, rapid and simple
- Low Capital Investment: very low maintenance cost
- 30 Years Service Life: superior corrosion resistance
- Attractive Appearance: colour can be customized
- Quality Control: according to international standard
- Flexibility: re-model, extend, dismantle and relocate